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ribbon support comprising a pivoted lever, plural electro magnets and armatures for actuating said lever in opposite directions, a spring for supplementing the action of one of 5 said electro magnets and electric selective

apparatus controlling said magnets.

13. In printing telegraphs, the combination with the inking ribbon and with a support whereby said ribbon may be carried above 10 and away from the printing point, of means for effecting the shift of said inking ribbon support comprising a pivoted lever having an arm extending beyond its pivotal point, armatures connected with the opposite sides 15 of said arm, electro magnets arranged upon opposite sides of said arm for attracting said armatures and electric selective apparatus controlling said magnets.

14. In printing telegraphs, the combination 20 with the inking ribbon spools provided with ratchet wheels and with pawls for actuating said ratchet wheels, of a movable support for the inking ribbon to which support said pawls are connected, an electro magnet having an 25 armature connected to said movable support whereby said support is shifted to move the ribbon above and away from the printing point and to effect the longitudinal advance of the ribbon and electric selective apparatus

30 controlling said magnet.

15. In printing telegraphs, the combination

with the inking ribbon and with a support whereby said ribbon may be carried above and away from the printing point, of means for effecting the shift of said inking ribbon 35 support comprising a movable arm or lever, an electro magnet for actuating said movable arm or lever, pawls connected to said movable arm or lever, ratchet wheels with which said pawls may be engaged, ribbon spools to 40 which said ratchet wheels are connected, means for throwing either of said pawls into or out of engagement with its corresponding ratchet wheel and electric selective apparatus controlling said magnet.

16. In printing telegraphs, the combination with the finger keys, the paper carriage and the carriage-feed, of an operating magnet for said carriage-feed, a normally open springheld switch controlling the circuit through 50 said magnet, a shifter for operating said switch against the tension of its spring, means controlled by the operation of the finger keys for actuating said shifter, a cam for tripping said shifter to permit the return 55 of the switch to normal, open position and electric selective apparatus controlling said

magnet.

CHARLES L. KRUM.

Witnesses:

HARRY L. CLAPP, LILLIAN PRENTICE.